



## Complete Summary

### TITLE

Acute myocardial infarction: median time from emergency department (ED) arrival to administration of fibrinolytic therapy in ED patients with ST-segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to ED arrival and prior to transfer.

### SOURCE(S)

Centers for Medicare & Medicaid Services (CMS). Specifications manual for hospital outpatient department quality measures (v 2.1a). Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2009. 245 p.

## Measure Domain

### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the time (in minutes) from emergency department (ED) arrival to administration of fibrinolytic therapy in ED patients with ST-segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to ED arrival and prior to transfer.

### RATIONALE

Time to fibrinolytic therapy is a strong predictor of outcome in patients with an acute myocardial infarction (AMI). Nearly 2 lives per 1,000 patients are lost per hour of delay. National guidelines recommend that fibrinolytic therapy be given within 30 minutes of hospital arrival in patients with ST-segment elevation

myocardial infarction. Despite these recommendations, few eligible older patients hospitalized with AMI receive timely fibrinolytic therapy.

## PRIMARY CLINICAL COMPONENT

Acute myocardial infarction (AMI); ST-segment elevation; left bundle branch block (LBBB); fibrinolytic therapy

## DENOMINATOR DESCRIPTION

Patients 18 years and older with an emergency department (ED) encounter who were discharged/transferred to a short-term general hospital for inpatient care or to a Federal healthcare facility with a diagnosis of acute myocardial infarction (AMI) and ST-segment elevation or left bundle branch block (LBBB) on electrocardiogram (ECG) performed closest to ED arrival (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## NUMERATOR DESCRIPTION

*Continuous variable statement:* Time (in minutes) from emergency department (ED) arrival to administration of fibrinolytic therapy in acute myocardial infarction (AMI) patients with ST-segment elevation or left bundle branch block (LBBB) on electrocardiogram (ECG) performed closest to ED arrival and prior to transfer

## Evidence Supporting the Measure

### EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [\(1\) ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines \(Committee to revise the 1999 guidelines for the Management of Acute Myocardial Infarction\). \(2\) 2007 focused update of the ACC/AHA 2004 guidelines for the management of patients with ST-elevation myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines.](#)

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Overall poor quality for the performance measured  
Use of this measure to improve performance

## **EVIDENCE SUPPORTING NEED FOR THE MEASURE**

Jencks SF, Cuerdon T, Burwen DR, Fleming B, Houck PM, Kussmaul AE, Nilasena DS, Ordin DL, Arday DR. Quality of medical care delivered to Medicare beneficiaries: A profile at state and national levels. JAMA2000 Oct 4;284(13):1670-6. [PubMed](#)

### **State of Use of the Measure**

#### **STATE OF USE**

Current routine use

#### **CURRENT USE**

External oversight/Medicare  
Internal quality improvement

### **Application of Measure in its Current Use**

#### **CARE SETTING**

Hospitals

#### **PROFESSIONALS RESPONSIBLE FOR HEALTH CARE**

Measure is not provider specific

#### **LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED**

Single Health Care Delivery Organizations

#### **TARGET POPULATION AGE**

Age greater than or equal to 18 years

#### **TARGET POPULATION GENDER**

Either male or female

#### **STRATIFICATION BY VULNERABLE POPULATIONS**

Unspecified

### **Characteristics of the Primary Clinical Component**

#### **INCIDENCE/PREVALENCE**

Unspecified

## **ASSOCIATION WITH VULNERABLE POPULATIONS**

See the "Rationale" field.

## **BURDEN OF ILLNESS**

See the "Rationale" field.

## **UTILIZATION**

Unspecified

## **COSTS**

Unspecified

# **Institute of Medicine National Healthcare Quality Report Categories**

## **IOM CARE NEED**

Getting Better

## **IOM DOMAIN**

Effectiveness  
Timeliness

# **Data Collection for the Measure**

## **CASE FINDING**

Users of care only

## **DESCRIPTION OF CASE FINDING**

Patients 18 years and older with an emergency department (ED) encounter who were discharged/transferred to a short-term general hospital for inpatient care or to a Federal healthcare facility with a diagnosis of acute myocardial infarction (AMI) and ST-segment elevation or left bundle branch block (LBBB) on electrocardiogram (ECG) performed closest to ED arrival (see the "Denominator Inclusions/Exclusions" field)

## **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

## **DENOMINATOR INCLUSIONS/EXCLUSIONS**

## **Inclusions**

- An *E/M Code* for emergency department (ED) encounter as defined in Appendix A, OP Table 1.0\*
- Patients discharged/transferred to a short-term general hospital for inpatient care or to a Federal healthcare facility
- An *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code* for acute myocardial infarction (AMI) as defined in Appendix A, OP Table 1.1\*
- ST-segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to ED arrival
- *Fibrinolytic Administration* as defined in the Data Dictionary\*

## **Exclusions**

- Patients less than 18 years of age
- Patients who did not receive *Fibrinolytic Administration* within 30 minutes and had a *Reason for Delay in Fibrinolytic Therapy* as defined in the Data Dictionary\*

\*Refer to the original measure documentation for details.

## **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

## **DENOMINATOR (INDEX) EVENT**

Clinical Condition  
Diagnostic Evaluation  
Encounter  
Institutionalization  
Therapeutic Intervention

## **DENOMINATOR TIME WINDOW**

Time window follows index event

## **NUMERATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

*Continuous variable statement:* Time (in minutes) from emergency department (ED) arrival to administration of fibrinolytic therapy in acute myocardial infarction (AMI) patients with ST-segment elevation or left bundle branch block (LBBB) on electrocardiogram (ECG) performed closest to ED arrival and prior to transfer

### **Exclusions**

None

## **MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

#### **NUMERATOR TIME WINDOW**

Fixed time period

#### **DATA SOURCE**

Administrative data  
Medical record

#### **LEVEL OF DETERMINATION OF QUALITY**

Not Individual Case

#### **PRE-EXISTING INSTRUMENT USED**

Unspecified

### **Computation of the Measure**

#### **SCORING**

Continuous Variable

#### **INTERPRETATION OF SCORE**

Better quality is associated with a lower score

#### **ALLOWANCE FOR PATIENT FACTORS**

Unspecified

#### **STANDARD OF COMPARISON**

External comparison at a point in time  
External comparison of time trends  
Internal time comparison

### **Evaluation of Measure Properties**

#### **EXTENT OF MEASURE TESTING**

Unspecified

## Identifying Information

**ORIGINAL TITLE**

OP-1: hospital outpatient acute myocardial infarction: median time to fibrinolysis.

**MEASURE COLLECTION**

[Hospital Outpatient Department Quality Measures](#)

**MEASURE SET NAME**

[Hospital Outpatient Acute Myocardial Infarction](#)

**DEVELOPER**

Centers for Medicare & Medicaid Services

**FUNDING SOURCE(S)**

United States Department of Health and Human Services

**COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE**

Centers for Medicare & Medicaid (CMS) Contractor

**FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST**

None

**ENDORSER**

National Quality Forum

**ADAPTATION**

Measure was not adapted from another source.

**RELEASE DATE**

2008 Apr

**REVISION DATE**

2009 Jan

**MEASURE STATUS**

This is the current release of the measure.

## **SOURCE(S)**

Centers for Medicare & Medicaid Services (CMS). Specifications manual for hospital outpatient department quality measures (v 2.1a). Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2009. 245 p.

## **MEASURE AVAILABILITY**

The individual measure, "OP-1: Hospital Outpatient Acute Myocardial Infarction: Median Time to Fibrinolysis," is published in the "Specifications Manual for Hospital Outpatient Department Quality Measures (Version 2.1a)." This document is available from the [QualityNet Web site](#). Check the QualityNet Web site regularly for the most recent version of the specifications manual and for the applicable dates of discharge.

## **NQMC STATUS**

This NQMC summary was completed by ECRI Institute on February 20, 2009. The information was verified by the measure developer on May 8, 2009.

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Date Modified: 6/1/2009

